

**REMARKS**

By this Amendment, claims 1 and 12 are amended and claim 6 is canceled. Accordingly, claims 1-5 and 7-12 are pending in this application. No new matter is presented in this Amendment.

The Office Action provisionally rejects claims 1-12 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over various claims of copending Application Nos. 10/655,304, 10/667,347, and 10/654,432. This rejection is respectfully traversed. Applicant holds in abeyance the specific reasons for this traversal, pending the allowance of any of the applications upon which this rejection is based.

The Office Action rejects claims 1-5, 7, 9 and 12 under 35 U.S.C. §102(e) over U.S. Patent No. 6,603,429 to Bancroft et al. ("Bancroft"). This rejection is respectfully traversed.

Independent claim 1 recites, *inter alia*, an antenna, comprising a ground pattern, a planar element juxtaposed with the ground element, wherein the planar element has a trimmed portion causing to continuously change a distance between the planar element and the ground pattern.

Paragraph 7 of the Office Action alleges that Bancroft discloses all of the features of claim 1, except for at least a part of the trim portion being composed of an arc. Claim 1 recites this feature originally recited in claim 6.

Accordingly, since Bancroft does not disclose, teach or suggest each and every feature recited in claim 1, the rejection of claim 1 under 35 U.S.C. §102(e) is improper. Therefore, Applicant respectfully submits that independent claim 1 is patentable over Bancroft. Claims 2-5, 7, 9 and 12 are likewise patentable over Bancroft at least for their dependence on claim 1, as well as for additional features they recite. Withdrawal of the rejection over Bancroft is respectfully requested.

The Office Action rejects claims 6 and 11 under 35 U.S.C. §103(a) over Bancroft in view of U.S. Patent No. 4,151,532 to Kaloi et al. ("Kaloi") and U.S. Patent No. 4,605,012 to Ringeisen et al. ("Ringeisen"). The Office Action asserts that Bancroft discloses all the features of claims 6 and 11 except for at least one of a curved line and line segments, which are connected while their inclinations are changed stepwise. The Office Action relies on Kaloi or Ringeisen to allegedly resolve the deficiencies. This rejection is respectfully traversed.

Applicant respectfully submits that the combination or modification of references cannot render the claims 1 and 11 obvious unless the prior art also suggest the desirability of the combination. It is improper to use the claimed invention as an instruction manual to piece together the teachings of the prior art so that the claimed invention is rendered obvious. The Office Action appears to use improper hindsight reconstruction to pick and choose among isolated disclosures.

The Office Action alleges that motivation to combine Bancroft, Kaloi and Ringeisen is provided in the desire to provide a different shape of antenna element in order to have variety of different purposes and circumstances. Applicant respectfully disagrees.

Kaloi discloses twin electric microstrip dipole antennas consisting of thin electrically conduction rectangular shape elements formed on both sides of a dielectric substrate. Kalio does not disclose an antenna in which the ground pattern and the planar element are juxtaposed. As such, the dipole antenna of Kalio operates on a radiation principle completely different than the monopole recited by Applicant or Bancroft. Thus, a person of ordinary skill in the art would not have been motivated to combine the teachings of Kalio with those of Bancroft.

In fact, Kalio, at column 1, lines 59-66, teaches away from antenna types having a ground plane that may be larger than the radiating element because the ground plane could not be excited at the same resonant frequency as the radiating element.

As noted above, Kalio neither discloses a ground element juxtaposed with the a planar element, as recited in claim 1, nor discloses a planar element having an edge portion opposite a ground portion, as recited in claim 11. Thus, without positively disclosing a ground pattern, Kaloi can neither disclose nor teach nor suggest a curved antenna element having a specific disposition relative to a ground pattern, as recited in claims 1 and 11.

Applicant respectfully submits that Ringeisen discloses an antenna having the same structure as Kaloi. As shown in Fig. 3, Ringeisen discloses a first conductor 3 and a second conductor 4 disposed on respective sides of a printed circuit board 1. Applicant respectfully submits that for the same reasons that the combination of Bancroft and Kaloi is improper, the combination of Bancroft and Ringeisen is likewise improper. Because the coupling between a ground pattern and an antenna element is very important and has different conditions based on the antenna type, it is impossible to simple apply part of the structure of one type of antenna to the structure of another type of antenna. As such, Applicant respectfully submits that there is no motivation to apply the microstrip antenna of Kaloi or Ringeisen to a different type in Bancroft.

Specifically, Applicant submits that the Office Action has not shown that it is desirable, or even feasible, to apply the structure of a dipole antenna, or any antenna having either a first and second antenna element on separate and parallel planes, or an antenna element and a ground plane on parallel planes, to a monopole antenna with a juxtaposed ground pattern, as recited in claims 1 and 11.

Thus, it is submitted that the rejection of claims 1 and 11 is based upon an improper combination of applied references and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

The Office Action further rejects claims 8 and 10 under 35 U.S.C. §103(a) over Bancroft in view of U.S. Patent No. 6,157,344 to Bateman et al. ("Bateman"). The Office Action asserts that Bancroft discloses all the features of claims 8 and 10 except for a planar element having a cut-out portion formed at an edge portion opposite to the ground pattern side of the planar element. The Office Action relies on Bateman to allegedly resolve the deficiencies. This rejection is respectfully traversed.

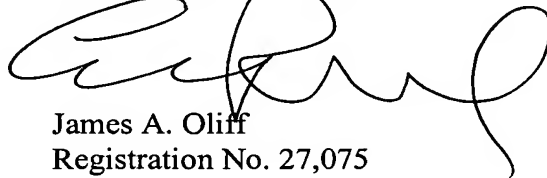
As discussed above, the Office Action admits that features recited in claim 1 are not disclosed by Bancroft. Applicant respectfully submits that Batman likewise fails to disclose, teach or suggest at least a part of the trim portion being composed of an arc, as recited in claim 1.

Therefore, Applicant submits that claims 8 and 10 are patentable over the applied references in view of their dependency on claim 1, as well as for additional features they recite. Withdrawal of the rejection is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-5 and 7-12 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:ERM

Attachment:  
Petition for Extension of Time

Date: April 18, 2005

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